

We claim:

1. A cross-linked and cross-linkable organosilicon polymer, comprising vinyl terminated resin selected from the group consisting of vinyl functional polydimethyl siloxane and reactive polysiloxane resin having both  
5 reactive carbon-carbon double bonds and silicone hydrogen groups.
2. An organosilicon polymer according to claim 1, wherein the vinyl functional polydimethyl siloxane is methyl divinyl siloxane.
3. An organosilicon polymer according to claim 2, wherein the methyl divinyl siloxane has a molecular weight of 100,000 or greater.
- 10 4. An organosilicon polymer according to claim 1, further comprising fumed silica.
5. An organosilicon polymer according to claim 1, further comprising phenyl substituted siloxane that is vinyl functional.
6. An organosilicon polymer according to claim 5, wherein the phenyl  
15 substituted siloxane has a molecular weight of 50,000 or greater.
7. An organosilicon polymer according to claim 1, wherein the polysiloxane resin comprises a silicon hydrocarbon crosslinking agent comprising alternating structures of polycyclic polyene residue and cyclic (or tetrahedral) siloxysilane residue.
- 20 8. An organosilicon polymer according to claim 1 comprising in the range of about 1 wt % to about 60 wt % of the vinyl substituted polymethyl siloxane.
9. An organosilicon polymer according to claim 8, comprising in the range of about 5 wt % to about 25 wt % of the vinyl substituted polymethyl  
25 siloxane.

10. An organosilicon polymer according to claim 1, comprising in the range of about 1 wt % to about 80 wt % of the silicon hydrocarbon cross-linking agent.
11. An organosilicon polymer according to claim 10, comprising in the range of about 1 wt % to about 40 wt % of the silicon hydrocarbon cross-linking agent.
12. An organosilicon polymer according to claim 1, further comprising a group VIII metal catalyst.
13. An organosilicon polymer according to claim 12, wherein the group VIII metal catalyst is selected from the group consisting of platinum based compounds, rhodium based compounds, ruthenium based compounds, iridium based compounds, palladium based compounds and mixtures thereof.
14. An organosilicon polymer according to claim 13, wherein the group VIII metal catalyst is selected from the group consisting of chloroplatinic acid, platinum chloride, dibenzonitrile platinum dichloride, platinum on carbon, platinum on silica, platinum on alumina, olefinic complexes,  $\text{RhCl}(\text{PPh}_3)_3$ ,  $\text{RhCl}(\text{CO})(\text{PPh}_3)_2$ ,  $\text{Ru}_3(\text{CO})_{12}$ ,  $\text{IrCl}(\text{CO})(\text{PPh}_3)_4$ ,  $\text{Pd}(\text{PPh}_3)_4$ , and mixtures thereof.
15. An organosilicon polymer according to claim 1, wherein the polymer further comprises an additive selected from the group consisting of antioxidants, compatibilizing agents, metallic, mineral and organic fillers, flow control agents, air release agents, adhesion promoters, cure rate modifiers, silicone gum, rubber particles and mixtures thereof.

16. An electronic sensor module containing the organosilicon polymer of claim 1 as a protective encapsulant.
17. An electronic sensor module containing the organosilicon polymer of claim 1 as an adhesive.